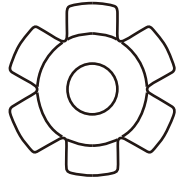
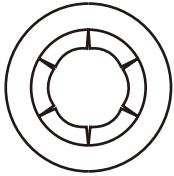


3 | PUSH NUTS

Types of Push Nuts (Characteristics and Instructions for Use)

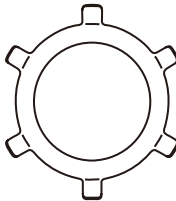
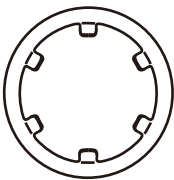
(1) Self-locking External Nut (2) Self-locking Internal Nut



Characteristics

- By fitting the Self-locking Nuts on the shaft (groove) in the thrust direction that is parallel with the shaft (groove), their prongs bite into the retained part so as to prevent dropping off.
- There is no need of machining a groove and the Nuts can be freely positioned and fixed.
- The product is structured so that its prongs bite into the shaft.

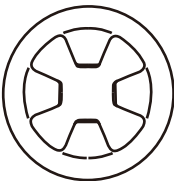
(3) Circular External Nut (4) Circular Internal Nut



Characteristics

- The Circular Nuts have lower fitting force and are profiled to be less prone to damage the shaft than the Self-locking Nuts.
- The Circular Nuts have smaller outside diameters than the Self-locking Nuts.
- These nuts have smaller thrust loads than the Self-locking Nuts.

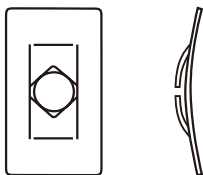
(5) Circular Push-on Nut



Characteristics

- The thrust load is between that of the Self-locking Nuts and that of the Circular External Nut.
- There is no need of taking care of misalignment during fitting since the Nut has longer prongs than the Circular External Nut.
- External product only.

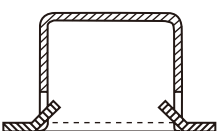
(6) P-Type Push-on Nut



Characteristics

- The spring action is given by curving the whole nut on an arched line. The retained part can be fastened with the Nut pushed in (without looseness).
- External product only.

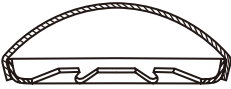
(7) Cap Nut F-Type



Characteristics

- The Nut avoids snag issues (scratches and injury) on the axial end face by protecting the end face of the retained shaft.
- Used for decoration.

(8) Cap Nut D-Type



Characteristics

- The Nut avoids snag issues (scratches and injury) on the axial end face by protecting the end face of the retained shaft.
- Used for decoration.
- Combined product of the Self-locking Nuts and the Cap Nuts.

(9) Flat Push Nut



Characteristics

- Unlike push nuts, Circular External Nut, and Circular Push-on Nut, this type of retaining ring does not have bent tabs, making it easy to use without distinguishing between the front and back, and facilitating automation.
- The thrust load falls between that of push nuts and Circular External Nut.
- It includes guides to prevent misalignment during insertion.
- External product only.

Instructions for Use

- (1) If the retained part is rigid in hardness or applied with such surface treatment as produces a hard coating (nickel plating, chrome plating), there is no difference in hardness between the retaining ring and the retained part. Then the prongs will not bite into the retained part causing the thrust load to be reduced.
- (2) The purpose is to prevent dropping off of retained parts. And the parts are not pressurized (no force to continuously push on them). However, for the P-Type Push-on Nut, force to push on the retained part will be produced.
- (3) For repairing and maintenance of the retained part, the product cannot be reused since it is removed as deformed (destroyed) from the part.
- (4) When fitting the product on the retained part, install it with care to prevent the fitting jig from being caught. Otherwise, the retained part may not be allowed to be fixed due to deformed prongs. (Except for the Grip Ring) Be sure to verify the conditions by using the actual machine.
- (5) When fitting the product on the retained part, do not install it obliquely. The thrust load (drop off force) may be reduced as compared to the case where the product is correctly installed.
- (6) Never insert your finger(s) into any of the external products. The product will not slip off from your finger(s) and this is very dangerous.